

CLAIMS AMENDMENT

Claim 1 (Currently amended). A mutant protein derived from a wild-type human Bcl-2 protein, said wild-type human Bcl-2 protein has an amino acid sequence of 239 amino acid residues and is selected from the group consisting of Bcl-2 isoform 1 (SEQ ID NO: 3), Bcl-2 isoform 2 (SEQ ID NO: 4) and Bcl-2 isoform 3 (SEQ ID NO: 5),

wherein a sequence of amino acid residues comprising at least a portion of a flexible loop from said wild-type human Bcl-2 protein is replaced with a replacement amino acid sequence comprising at least two acidic amino acids,

wherein the amino acid residues which encode comprise said flexible loop from said wild-type human Bcl-2 protein comprise amino acids 35-91 of said wild-type human Bcl-2 protein,

and further wherein said mutant protein does not aggregate in solution.

Claim 2 (Original). The mutant protein of Claim 1 wherein said replacement amino acid sequence comprises a sequence of at least a portion of a flexible loop from human Bcl-X_L protein.

Claim 3 (Original). The mutant protein of Claim 2 wherein the replacement amino acid sequence comprises the sequence of SEQ ID NO: 1.

Claim 4 (Original). The mutant protein of Claim 1 wherein the replacement amino acid sequence comprises at least 4 to about 50 amino acid residues.

Claim 5 (Original). The mutant protein of Claim 1 wherein said replacement amino acid sequence comprises a sequence of at least 16 to about 25 amino acid residues.

Claim 6 (Original). The mutant protein of Claim 1 wherein said acidic amino acids are glutamic acid.

Claim 7 (Original). The mutant protein of Claim 1 wherein said acidic amino acids are aspartic acid.

Claim 8 (Original). The mutant protein of Claim 1 wherein said acidic amino acids are a glutamic acid and aspartic acid.

Claim 9 (Canceled).

Claim 10 (Original). The mutant protein of Claim 1 which has an isoelectric point lower than that of wild-type Bcl-2.

Claim 11 (Original). The mutant protein of Claim 10 wherein said isoelectric point is from 4.5 to about 6.0.

Claim 12 (Original). The mutant protein of Claim 10 wherein said isoelectric point is from about 5.0 to about 5.5.

Claim 13 (Original). The mutant protein of Claim 10 wherein said isoelectric point is 5.0.

Claim 14 (Original). A mutant protein having an amino acid sequence comprising:

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDAGDDVEENRTEAPEGTESEVV
HLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRAFTVVEELFRDGVNWG
RIVAFFEFGGVMCVESVNREMSPLVDNIALWMTEYLRHLHTWIQDNGGWDAFV
ELYGPSMR (SEQ ID NO: 2).

Claim 15 (Canceled).

Claim 16 (Canceled).

Claim 17 (Canceled).

Claim 18 (Canceled).